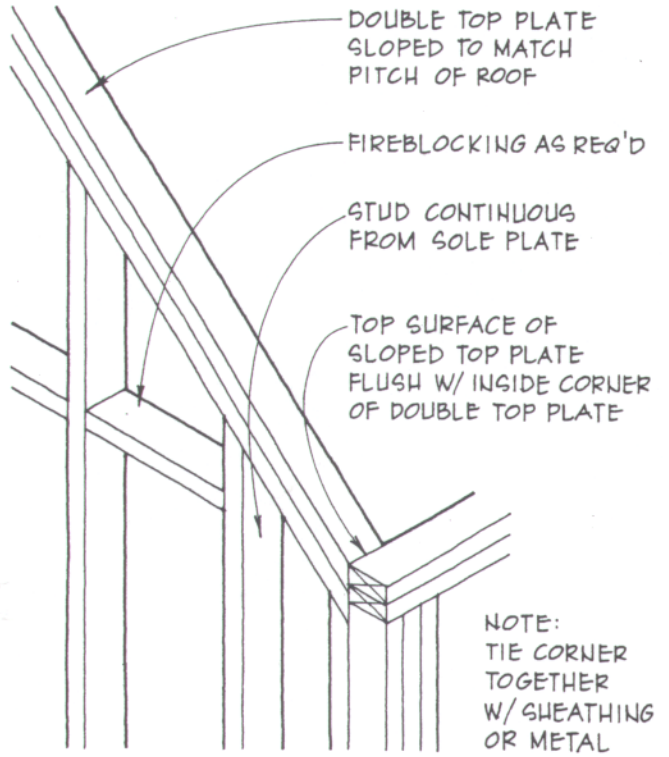
A wall that extends to a sloped roof or ceiling is called a rake wall and may be built one of two ways:

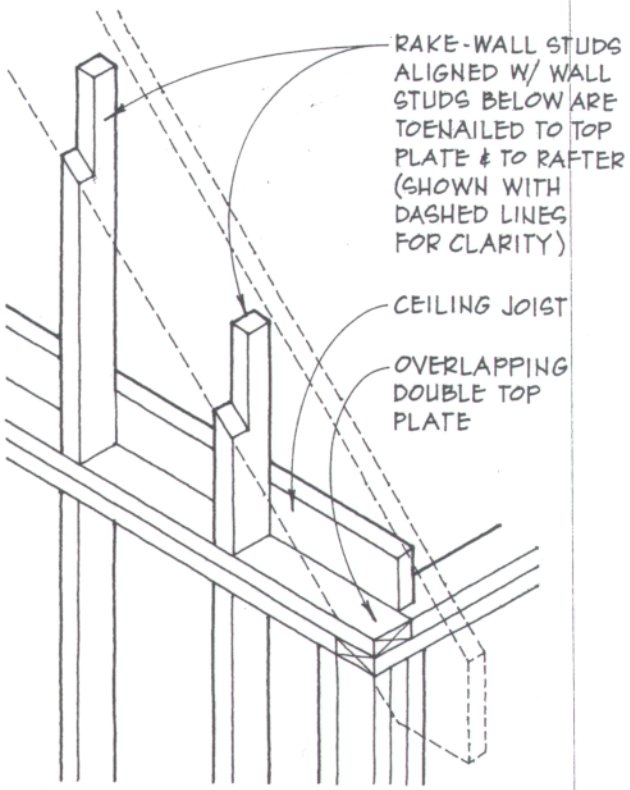
Platform framing—Platform framing is commonly the method of choice when a horizontal structural element such as a floor or ceiling ties the structure together at the level of the top plate or when the top plate itself is short enough to provide the necessary lateral strength (see 72B).

Balloon framing—Balloon framing allows for ease of construction and economy of material and stabilizes a tall wall where there is no horizontal structure at the level of the top plate or where lateral forces are extreme, such as in high-wind areas (see 72C).

For details of rake walls with truss-framed roofs, see 157.

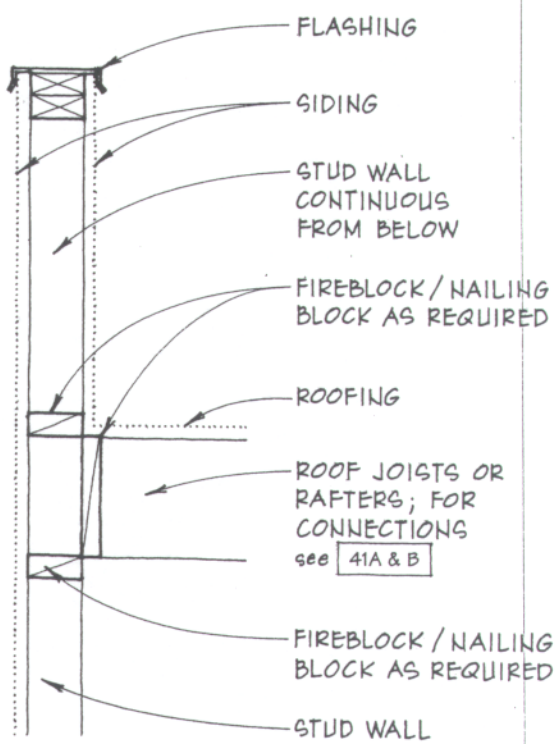


C RAKE WALL
BALLOON FRAMING

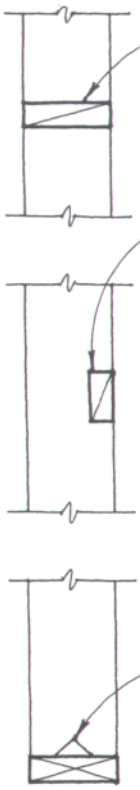


B RAKE WALL
PLATFORM FRAMING

A RAKE WALL
NOTES



D PARAPET WALL FRAMING
ROOF JOISTS SHOWN ⊥ TO WALL

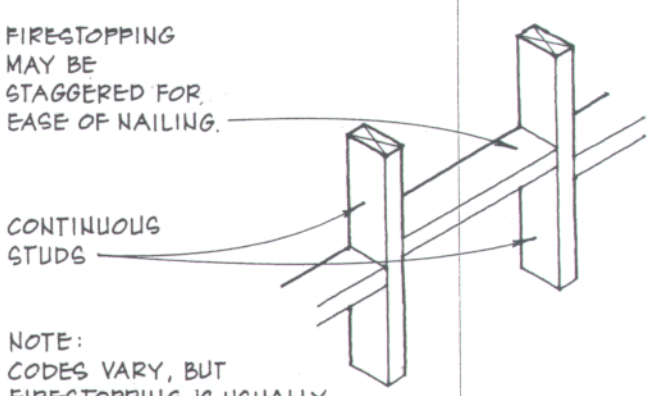


FIRESTOPPING RETARDS THE SPREAD OF FIRE IN WALL CAVITIES & MAY ALSO SERVE AS BLOCKING see 73B

BLOCKING SUPPORTS PIPING & OTHER UTILITIES WITHIN THE WALL CAVITY. IT PROVIDES A SOLID NAILING SURFACE FOR CHANGES IN MATERIAL SUCH AS WAINSCOTING, & IT ALSO SUPPORTS CABINETS, PLUMBING FIXTURES, TRIM, TOWEL BARS, BALUSTRADES & OTHER ACCESSORIES THAT ARE ATTACHED TO THE FINISH SURFACE OF THE WALL. WHEN POSSIBLE, BLOCKING IS APPLIED FLAT TO ALLOW INSULATION @ EXTERIOR WALLS.

NOTCHING BASE OF 2×6 WALL ALLOWS ELECTRICAL WIRES TO RUN WITHOUT COMPRESSING INSULATION @ CENTER OF WALL (NOT ALLOWED IN 2×4 WALL).

A BLOCKING & NOTCHING

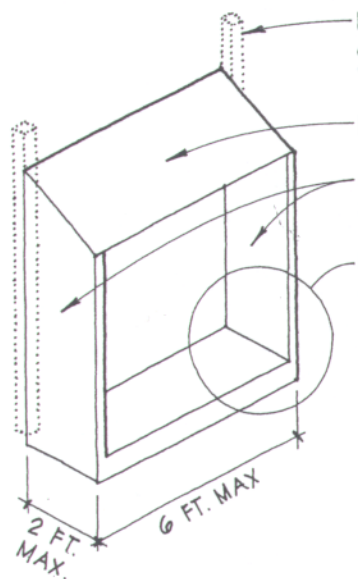


NOTE:
CODES VARY, BUT FIRESTOPPING IS USUALLY REQUIRED: AT STAIRS ALONGSIDE THE STRINGERS; BETWEEN FLOORS & BETWEEN THE TOP FLOOR AND THE ATTIC IN BALLOON-FRAME BUILDINGS (THE PLATES IN PLATFORM-FRAME BUILDINGS AUTOMATICALLY PROVIDE FIREBLOCKING BETWEEN FLOORS); BETWEEN WALL CAVITIES & CONCEALED HORIZONTAL SPACES SUCH AS SOFFITS & DROP CEILINGS; IN TALL WALLS EVERY 10 FT. VERTICALLY.

FIRESTOPPING IS USUALLY 2× FRAMING LUMBER BUT CAN ALSO BE OTHER MATERIALS SUCH AS LAYERS OF PLYWOOD OR GYPSUM WALLBOARD WHEN APPROVED BY LOCAL CODES.

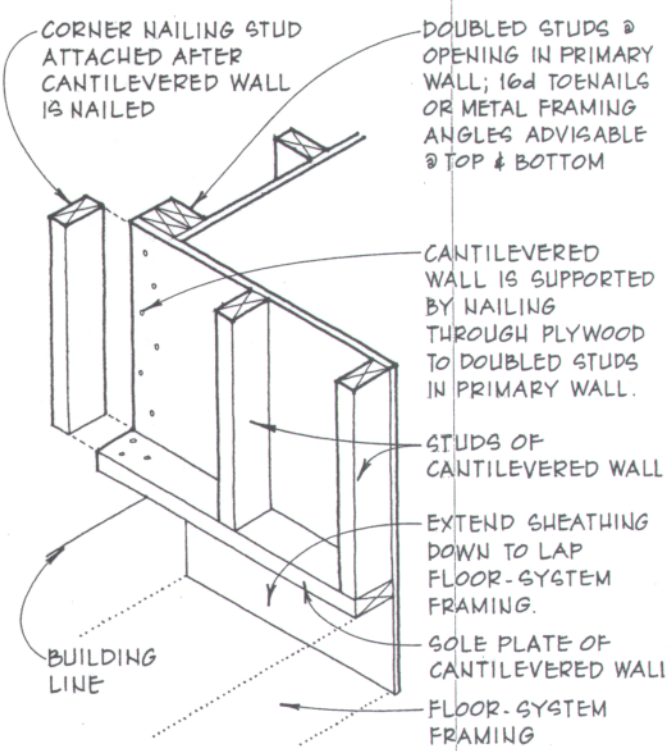
B FIRESTOPPING

IT IS OCCASIONALLY DIFFICULT OR IMPOSSIBLE TO CANTILEVER THE FLOOR FRAMING TO SUPPORT A PROJECTION FROM THE BUILDING. WHERE LOADS ARE NOT GREAT, IT IS POSSIBLE TO SUPPORT THE PROJECTION WITH CANTILEVERED WALLS.



NOTE:
CANTILEVERED WALLS SHOULD BE ENGINEERED IF THEY PROJECT MORE THAN 2 FT., IF THEY ARE MORE THAN 6 FT. APART OR IF THEY WILL SUPPORT HEAVY SNOW LOADS.

C CANTILEVERED WALLS



D CANTILEVERED-WALL FRAMING

DETAIL @ BASE